

REMARKS

Claims 1, 16, 30 and 42 have been amended. No new matter has been added. Claims 1-45 are currently pending in this application.

Claims 1, 2, 9, 15-17, 24 and 29 stand rejected under 35 U.S.C. § 102(3) as being anticipated by Kozicki, U.S. Patent Application Publication No. 2003/0137869 (Kozicki). This rejection is respectfully traversed.

Independent claim 1 recites a “method of forming a chalcogenide material containing device.” Independent claim 16 recites a “method of fabricating resistance variable memory elements.” Each of claims 1 and 16 recite that the respective methods comprise, *inter alia*, “forming a stack of one or more layers” and “subsequently etching each layer of the stack and the protective layer.” The Office Action contends that this limitation is inherently disclosed by Kozicki. Applicants, respectfully disagree.

To support the position that Kozicki inherently discloses etching, the Office Action points to Kozicki’s FIG. 30 and paragraphs 43, 44 and 128. Paragraphs 43 and 44, however, discuss the materials that Kozicki’s electrodes may be formed of. Paragraphs 43 and 44 are entirely silent about the way in which any structures are formed and do not disclose or even imply etching of any sort.

Paragraph 128 relates to FIGS 30-33, and describes that each of FIGS. 30-33 show a structure 3000 having first second and third electrodes and ion conductor portions arranged in a vertical stack. The Office Action states that because FIG. 30 shows a vertical stack, it is inherent that Kozicki discloses the stack is formed by etching. Contrary to the Office Action’s assertion, Kozicki teaches that the structure 3000 are formed at least partially within a via. Kozicki also states that the structure 3000 can be horizontal. Kozicki at paragraph 128. Thus, Kozicki necessarily implies

that the structure 3000 is not formed by “forming a stack of one or more layers” and “subsequently etching each layer of the stack and the protective layer,” as recited by claims 1 and 16. For at least these reasons, withdrawal of this rejection is respectfully requested.

Claims 3-8 and 28-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kozicki in view of Wolf et al., “Silicon Processing for the VLSI Era,” vol. 1, chapters 12 and 15 (1986) (Wolf). This rejection is respectfully traversed.

As discussed above, Kozicki fails to disclose teach or suggest all limitations of claims 1 and 16. Specifically, Kozicki fail to teach or suggest at least “forming a stack of one or more layers” and “subsequently etching each layer of the stack and the protective layer,” as recited by claims 1 and 16. Wolf does not supplement the deficiencies of Kozicki. Wolf is cited for teaching photoresist patterning and etching generally. Even when considered in combination, Kozicki and Wolf do not teach or suggest all the limitations of the present claims. For at least these reasons, withdrawal of this rejection is respectfully requested.

Claims 10, 25, and 30-45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kozicki in view of Nejad, U.S. Patent Application Publication No. 2005/0162883. This rejection is respectfully traversed.

Pursuant to 35 U.S.C. § 103(c), Nejad cannot properly be cited in a rejection under 35 U.S.C. § 103(a) in the present application as Nejad and the present application are commonly owned by the same assignee and Nejad can only qualify as prior art under 35 U.S.C. § 102(e)/103(a). A Statement Concerning Common Ownership, as required under MPEP § 706.02(l)(2), is included below.

Statement Concerning Common Ownership

Applicant's undersigned attorneys state that both the present application and Nejad were, at the time the invention was made, subject to an obligation of assignment to the same person, namely, Micron Technology, Inc.

For at least these reasons, withdrawal of this rejection is respectfully requested.

Claims 13 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kozicki in view of Kozicki, U.S. Patent No. 5,314,772 (the "'772 patent"). This rejection is respectfully traversed.

As discussed above, Kozicki fails to disclose teach or suggest all limitations of claims 1 and 16. Specifically, Kozicki fail to teach or suggest at least "forming a stack of one or more layers" and "subsequently etching each layer of the stack and the protective layer," as recited by claims 1 and 16. The '772 patent relates to a high resolution multi-layer resist for use in microlithography and does not supplement the deficiencies of Kozicki. The '772 patent is cited for teaching etching with halogen containing reactive ions, but teaches etching only unreacted arsenic sulfide. '772 patent at col. 4, lines 11-19. The '772 patent at Even when considered in combination, Kozicki and the '771 patent do not teach or suggest all of the limitations of the present claims. For at least these reasons, withdrawal of this rejection is respectfully requested.

Claims 14 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kozicki in view of Brown, U.S. Patent No. 6,086,796 (Brown). This rejection is respectfully traversed.

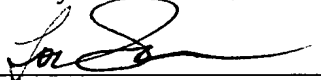
As discussed above, Kozicki fails to disclose teach or suggest all limitations of claims 1 and 16. Specifically, Kozicki fail to teach or suggest at least "forming a stack of one or more layers" and "subsequently etching each layer of the stack and the protective layer," as recited by claims 1 and 16. Brown relates to a method for manufacturing a diamond-like carbon coated optical phase-change recording medium

and does not supplement the deficiencies of Kozicki. Brown is cited for teaching an argon sputter etch process, but teaches etching only the optical media surface to remove contamination. Brown at col. 9, lines 52-65. Even when considered in combination, Kozicki and Brown do not teach or suggest all of the limitations of the present claims. For at least these reasons, withdrawal of this rejection is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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